

## Product datasheet for SC108961

### ATM (NM\_138292) Human Untagged Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | ATM (NM_138292) Human Untagged Clone  |
| Tag:                      | Tag Free  |
| Symbol:                   | ATM   |
| Synonyms:                 | AT1; ATA; ATC; ATD; ATDC; ATE; DKFZp781A0353; MGC74674; TEL1; TELO1                               |
| Mammalian Cell Selection: | None  |
| Vector:                   | <u>pCMV6-XL4</u>  |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| Fully Sequenced ORF:      | >OriGene ORF within SC108961 sequence for NM_138292 edited (data generated by NextGen Sequencing) |

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ATGACGTTACATGAGCCAGCAAATCTAGTGCCAGTCAGAGCACTGACCTCTGTGACTTT
TCAGGGGATTTGGATCCTGCTCCTAATCCACCTCATTTTCCATCGCATGTGATTAAGCA
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 GGCAAGGAGAGGAGACAGCTTGTAAAGGGCCGTGATGACCTGAGACAAGATGCTGTCATG  
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 TGGTGCACAGGAACTGTCCCATTTGGTGAATTTCTTGTAAACAATGAAGATGGTGTCTCAT  
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 CAAAAAAGTCTTTTGAAGAGAAATATGAAGTCTTCATGGATGTTTGCCAAAATTTTCAA  
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 CGATTGGCTTATACGCGCAGTGTAGCTACTTCTTCTATTGTTGGTTACATACTTGGACTT  
 GGTGATAGACATGTACAGAATATCTTGATAAATGAGCAGTCAGCAGAACTGTACATATA

GATCTAGGTGTTGCTTTTGAACAGGGCAAATCCTTCCTACTCCTGAGACAGTTCCTTTT  
 AGACTCACCAGAGATATTGTGGATGGCATGGGCATTACGGGTGTTGAAGGTGCTTCAGA  
 AGATGCTGTGAGAAAACCATGGAAGTGATGAGAACTCTCAGGAACTCTGTTAACCAT  
 GTAGAGGTCTTCTATATGATCCACTCTTTGACTGGACCATGAATCCTTTGAAAGCTTTG  
 TATTTACAGCAGAGGCCGGAAGATGAACTGAGCTTACCCTACTCTGAATGCAGATGAC  
 CAAGAATGCAAACGAAATCTCAGTGATATTGACCAGAGTTCAACAAAGTAGCTGAACGT  
 GTCTTAATGAGACTACAAGAGAACTGAAAGGAGTGGAAGAAGGCACTGTGCTCAGTGTT  
 GGTGGACAAGTGAATTTGCTCATACAGCAGGCCATAGACCCCAAAAATCTCAGCCGACTT  
 TTCACAGGATGGAAAGCTTGGGTGTGA

Clone variation with respect to NM\_138292.3

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_138292 unedited  
 AAAGAGAATGGATTAGAACCTCACCTTGTGAAAAAGTTTTAGAGAAAGTTTCTGAAACT  
 TTTGGATATAGACGTTTAGAAGACTTTATGGCATCTCATTAGATTATCTGGTTTTGGAA  
 TGGCTAAATCTTCAAGATACTGAATACAACCTTATCTTCTTTTCTTTTATTTTATTAAC  
 TACACAAATATTGAGGATTTCTATAGATCTTGTATAAGGTTTTGATTCCACATCTGGT  
 ATTAGAAGTCATTTTGTAGAGGTGAAGTCCATTGCTAATCAGATTCAAGAGGACTGGAA  
 AGTCTTCTAACAGACTGCTTTCCAAGATTCTTGTAAATATTCTTCTTATTTGCGCTAT  
 GAGGGTACCAGAGACAGTGGGATGGCACAGCAAAGAGAGACTGCTACCAAGGTCTATGAT  
 ATGCTTAAAAGTAAAACTTATTGGGAAAACAGATTGATCACTTATTCATTAGTAATTTA  
 CCAGAGATTGTGGTGGAGTTATTGATGACGTTACATGAGCCAGCAAATCTAGTGCCAGT  
 CAGAGCACTGACCTCTGTGACTTTTCAGGGATNTTGGATCCTGCTCCTAATCCACCTCA  
 TTTTCCATCGCATGTGATTAAAGCAACATTTGCCTATATCAGCAATTGTCATAAAACCAA  
 GNTAAAAGCATTNTAGAAATCTTTCCAAAGCCCTGATTCTATCAGAAAATCTTCT  
 TGCCATATGTGAGCAAGCAGCTGAACCAATTATGTTTTATAGGAAGCACAGAATCTTAAT  
 ATATCACCTG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_138292 unedited  
 CTATGGAACCGCGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTTTGAGATGGA  
 GTTTTCGCTCTTGTCAACCCAGGCTGGAGTCAATGGCATGATTTTGGCCACAGCAACCTT  
 CACCTCCCAGGTTCAAGAGATTCTCCTGCCTCAGCCTCTCGAGTAGCTGGGACCACAGGT  
 GCCCGCCACCATGCTCGGCTAATTTTTGTATTCTTAGTAGAGACAGGGTTTACCATACT  
 GGCCAGGCTGGTCTTTGGCCAGGCTGGTCTCGAACTCCTGACCTCGTGATCCGCTCACC  
 TCGGCCTCCCAAAGTGTGGGACTACAGGCGTGAGCCGCCGCGCCAGCCGAATGACCA  
 TTATTTCTAAAGAGTAAAAGCAGAGATGTTCTTAAGACCATCAAACATTTTTGAGTGG  
 TGATTAATCAAGTATTAACCAACATTCAAAAAACCCACAATAGTTCACTTAAATAT  
 TAATCCCTACTTAAAGTATGTTGGCAGGTTAAAAATAAAGGCTAAAATATAATTTCTAAA  
 GGCTGAATGAAAGGTAATTCATATACTGAAGATCACACCCAAGCTTTCCATCCTGGGAA  
 AAGTCGGCTGAGATTTTTGGGTCTATGGCCTGCTGTATGAGCAAATTCATTGTCCACC  
 AACACTGAGCACAGTGCCTTCTTCCACTCCTTTCAGTTTCTTGTAGTCTCATTAAAGAC  
 ACGTTCAGCTACTTTGTTGAACTCTGGTCAATCACTGAGATTTTCGTTGCATTCTTG  
 GTCATCTGCATTCAGAGTAGGGTGAAGCTCAGTTTCATCCTCCGGCCTGCTGAAATAC  
 AAAGCTTTCAAAGGATCATTGTTCCATCAAGAGTGGATCATATAGAAGGACCTCTCCAT  
 GGTAACAGAGTTTCTGAGAGTTTCTCATCTTCTGGTTTTCTCCAGCCACTTTGAAGAC  
 ACTTACAACCGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_138292

**Insert Size:**

6000 bp

|                               |  |
|-------------------------------|--|
| <b>OTI Disclaimer:</b>        | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).   |
| <b>Components:</b>            | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).   |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>  |
| <b>RefSeq:</b>                | <a href="#">NM_138292.3</a> , <a href="#">NP_612149.1</a>  |
| <b>RefSeq Size:</b>           | 8977 bp  |
| <b>RefSeq ORF:</b>            | 5127 bp  |
| <b>Locus ID:</b>              | 472  |
| <b>Cytogenetics:</b>          | 11q22.3  |
| <b>Domains:</b>               | PI3_PI4_kinase, FAT, FATC  |
| <b>Protein Families:</b>      | Druggable Genome, Protein Kinase, Transcription Factors  |
| <b>Protein Pathways:</b>      | Apoptosis, Cell cycle, p53 signaling pathway   |
| <b>Gene Summary:</b>          | <p>The protein encoded by this gene belongs to the PI3/PI4-kinase family. This protein is an important cell cycle checkpoint kinase that phosphorylates; thus, it functions as a regulator of a wide variety of downstream proteins, including tumor suppressor proteins p53 and BRCA1, checkpoint kinase CHK2, checkpoint proteins RAD17 and RAD9, and DNA repair protein NBS1. This protein and the closely related kinase ATR are thought to be master controllers of cell cycle checkpoint signaling pathways that are required for cell response to DNA damage and for genome stability. Mutations in this gene are associated with ataxia telangiectasia, an autosomal recessive disorder. [provided by RefSeq, Aug 2010]</p> <p>Transcript Variant: This variant (2) contains a distinct 5' UTR and is missing part of the 5' end of the coding region when compared to variant 1. The resulting isoform (2) has a truncated N-terminus when compared to isoform 1.</p> |